

TMDL for Diazinon in Chollas Creek Watershed

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Resolution No. R9-2002-0123

**Total Maximum Daily Load
(TMDL)
for Diazinon in
Chollas Creek Watershed
San Diego County**

Requirement for a TMDL



- **Clean Water Act, Section 303(d) list**
- **Beneficial Uses: WARM & WILD**



Toxicity Testing

- Water flea
- Freshwater minnow



Toxicity Summary

Station SD8(1) Toxicity (1994 - 2002)

	<i>C. dubia</i>		Fathead Minnow
	acute	chronic	chronic
Toxicity	12 of 18	16 of 18	7 of 12
Hits	66%	89%	58%

North and South Fork Toxicity in 2000 - 2001

	<i>C. dubia</i>
	acute
Toxicity	13 of 36
Hits	36%



Toxicity Identity Evaluation

- TIE to determine primary constituents causing toxicity

Diazinon?

?

Copper?

Lead?

?

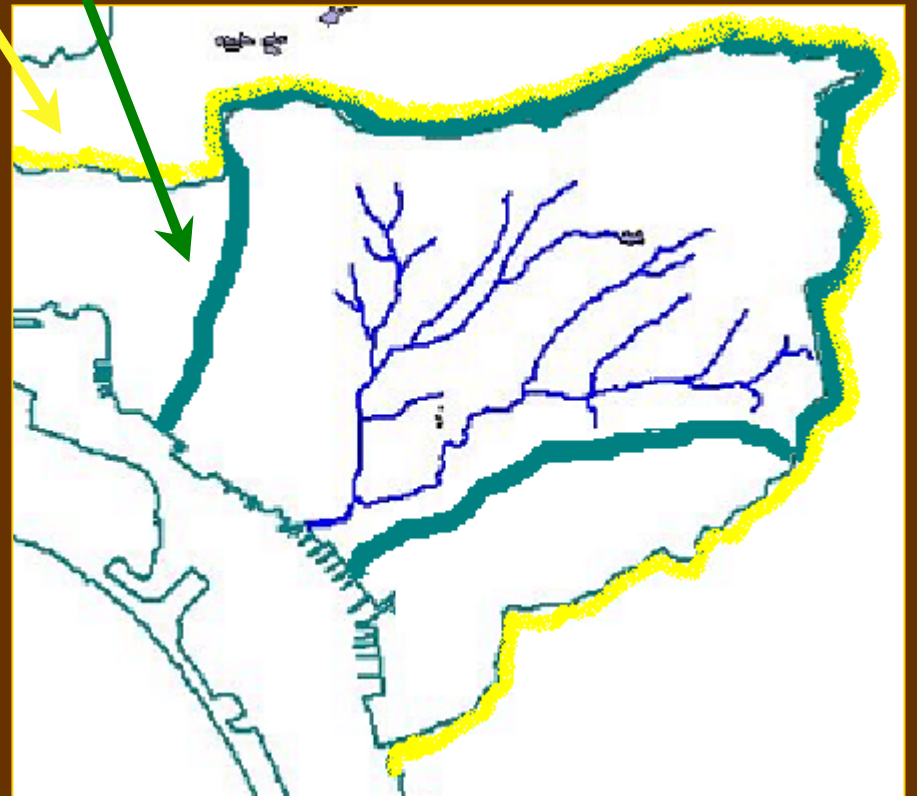
Zinc?

Chlorpyrifos?

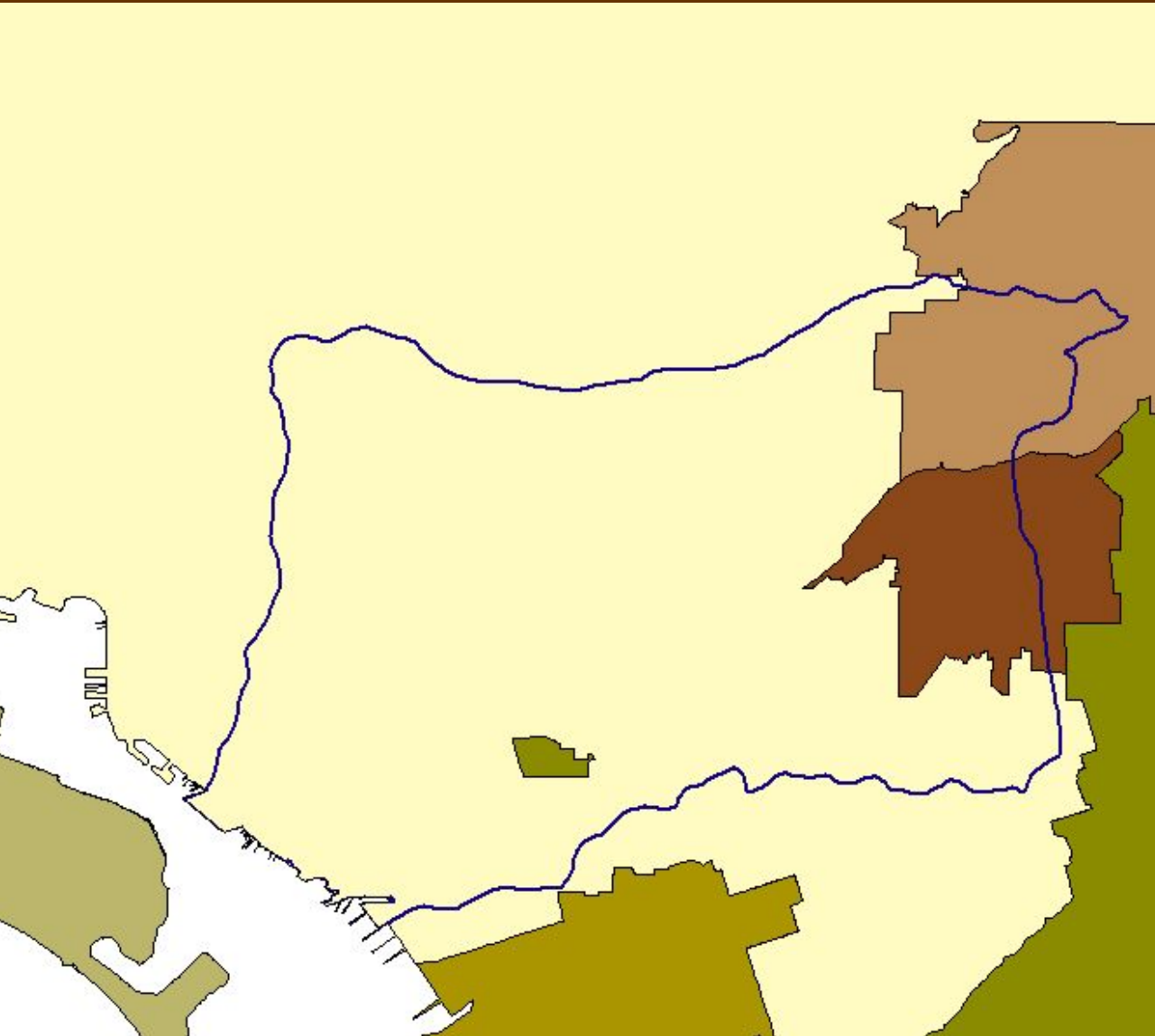
Watershed Location

Pueblo San Diego

Chollas Creek watershed



Jurisdiction in Chollas Creek



Yellow = City of
San Diego,
17,437 acres
(84%)

Tan = La Mesa,
1,613 acres (8%)

Dark Brown =
Lemon Grove,
1,646 acres (8%)

Green =
Unincorporated,
121 acres (<1%)



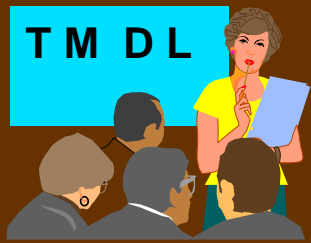
Numeric Targets

- **Concentration-based TMDL**
- **Numeric Targets =**
 - California Department of Fish and Game**
 - Water Quality Criteria for protection of**
 - freshwater aquatic life from diazinon**
 - **Acute criterion = 0.08 ug/L**
 - **Chronic criterion = 0.05 ug/L**



Allocation Targets

- **10% Margin of Safety**
- **Waste Load and Load Allocations are applied equally to all discharges**
 - **Allocations = 90% numeric targets**
 - **0.072 ug/L acute exposure**
 - **0.045 ug/L chronic exposure**



Scientific Peer Review

- **Health & Safety Code Section 57004**
- **All comments considered**



Implementation Plan

Major Components

- (1) USEPA diazinon phase-out**
- (2) Modification of MS4 Permit**
- (3) Reduce diazinon discharges**



Implementation Plan

Major Components cont.

(3) Reduce Diazinon discharges

- Enforce existing local ordinances & adopt new legal authority
- *Diazinon Toxicity Control Plan*
(To include a focused public outreach/ education program on diazinon waste load reduction)



Implementation Plan

Minor Components

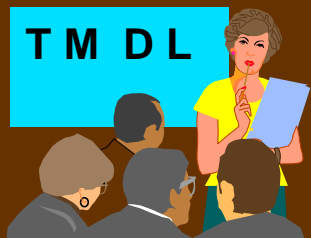
- (1 & 2) Compliance w/ the MS4 permit & existing Basin Plan waste discharge prohibitions**
- (3) Enforcement authority of Regional Bd**
- (4) Modification of other existing WDRs**
- (5) Adopt new WDRs or NPDES permits**
- (6) Additional investigations & reports pursuant to Water Code Section 13267**



Implementation Plan

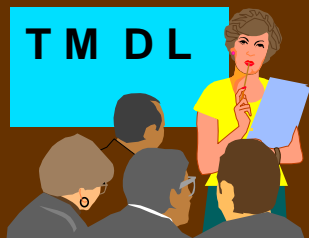
Monitoring Plan

- Assess effectiveness of TMDL
- Assess implementation measures
 - Water Quality objectives
 - Beneficial uses



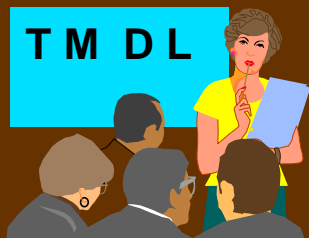
Environmental Review

- No potential for adverse social or environmental effects



Economic Considerations

- Cost/Benefit analysis not required
- Estimate cost of a reasonably foreseeable method of compliance
- Interagency collaboration critical for TMDL implementation plan success

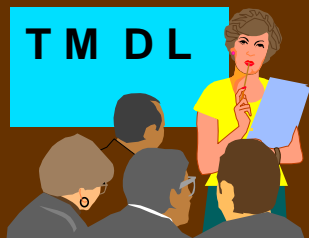


Public Participation

Public Workshops

- March 17, 1999
- August 3, 1999
- December 17, 1999
- May 17, 2002

**Additional Meetings with
Interested parties (May 24, June
4, 5 & 10)**



What's next?

Next Steps for TMDL

- State Water Resources Control Board (SWRCB) Staff recommends adoption of tentative Resolution R9-2002-0123
Office of Administrative Law (OAL)
- US Environmental Protection Agency (USEPA)

Aquatic Wildlife in Chollas Creek



California killifish collected at Chollas Creek Estuary July 2000